The Office
Of the
Chief Information Officer

Strategic Plan for
FY 2000 - 2005

OFFICE OF THE CHIEF INFORMATION OFFICER

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OFFICE OF THE CHIEF INFORMATION OFFICER

INTRODUCTION

Secretary's Memorandum 1030-30, pursuant to the Clinger Cohen Act of 1996, established the Office of the Chief Information Officer (OCIO). OCIO has primary responsibility for supervision and coordination within the U.S. Department of Agriculture (USDA) of the design, acquisition, maintenance, use, and disposal of IT by USDA agencies. The mission of the OCIO is to strategically acquire and use information and technology resources to improve the quality, timeliness, and cost effectiveness of USDA service delivery to its customers.

The USDA has identified five Departmental priorities:

- Expand economic and trade opportunities for U.S. agricultural producers
- Promote health by providing access to a safe, affordable, and nutritious food supply
- Maintain and enhance the Nation's natural resources and environment
- Enhance the capacity of all rural residents, communities, and businesses to prosper
- Operate an efficient, effective, discrimination-free organization

The Office of the Chief Information Officer, in concert with USDA agencies, must use information as a strategic resource to help accomplish these priorities. The Information Technology Management and Reform Act (ITMRA) of 1996, also known as the Clinger-Cohen Act (Division E of Public Law 104-106) established new information management requirements including the implementation of IT Architecture, Cyber Security management and oversight, and of a Capital Planning and Investment Control process. To meet the requirements of ITMRA, and to provide a Departmental focus on IRM issues, the OCIO provides Department-wide policy guidance, leadership, coordination and direction to the Department's information management and IT investment activities in support of USDA program delivery. In addition, OCIO has responsibility for the operational activity for the Department's National Information Technology Center (NITC) in Kansas City. NITC environment is national in scope and importance and its mission is clearly connected to the success of its customers: to enable government agencies to achieve their missions by providing innovative, cost effective, and secure IT solutions.

OCIO is working to ensure that USDA recruits and retains a skilled workforce and, in compliance with Section 508 of the Rehabilitation Act, is providing leadership to develop a corporate IT accessibility strategy to ensure accessibility to people with disabilities, including employees and members of the public. The OCIO works in partnership with the Federal CIO Council, the USDA Executive IT Investment Review Board (EITRB), the USDA IT Leadership group and USDA agency IRM and program managers.

Other authorizing legislations and authorities for OCIO include:

- Government Paperwork Elimination Act (GPEA) (Public Law 105-277, Title XVII)
- Freedom to E-File Act (S-777)
- Paperwork Reduction Act of 1995 (Public Law 104-13)
- Government Performance and Results Act of 1993 (Public Law 103-62)
- Computer Security Act of 1987 (Public Law 100-235)
- Office of Management and Budget Circular A-11
- Office of Management and Budget Circular A-130
- Federal Activities Inventory Reform (FAIR) Act
- Federal Managers Financial Integrity Act (FMFIA)
- Federal Records Act
- Federal Acquisition Reform Act of 1995
- Federal Acquisition Streamlining Act of 1994
- Federal Financial Assistance Management Improvement Act of 1999
- Agricultural Risk Protection Act of 2000
- The Electronic Signatures in Global and National Commerce Act

CURRENT USDA BUSINESS ENVIRONMENT

Even though the United States economy is enjoying the longest expansion in its history, critical challenges continue to face American agriculture, rural America, and other constituents of the United States Department of Agriculture (USDA). The Department must effectively manage its information and technology resources in order to meet these challenges.

Depressed markets and natural disasters have challenged USDA=s ability to respond to the needs of farmers. In the last few years, Congress and the Administration have supplied billions of dollars in emergency assistance for farmers significantly increasing the pressures on declining USDA staff and limited IT resources used to deliver assistance. The Department is also faced with enhancing agricultural exports, with continuing to improve the crop insurance program, which is the centerpiece of the farm safety net, and with continuing to improve food safety.

Even though America's farmers are facing difficulties, they continue to produce the most affordable and safest food supply in the world. However, millions of people still need nutrition assistance through USDA=s food stamp program, school lunch program, and others to take advantage of this supply. USDA also remains at the forefront of assisting countries around the world through programs that provide foreign food assistance.

USDA is challenged with bringing rural Americans the same opportunities for economic growth that exist in urban areas; with improving and expanding the conservation programs that preserve our water and our land; and, through the Forest Service, with

implementing a natural resources agenda for the 21st century that emphasizes sustainable forest management, recreation, forest roads, and watershed health and restoration. The Department=s missions include promoting research to develop new technologies that improve the productivity and competitiveness of farmers and creating new and useful products; monitoring and reporting on virtually every aspect of the farm and food economy; and maintaining the health of our nation's plants and animals.

Effectively managing information and technology continues to be critical to USDA's ability to meet the programmatic challenges that we face. However, the rapid pace of technological change - especially the emergence of the Internet – has increased pressure on USDA to fundamentally change the way we provide services to our customers. Customers increasingly expect to conduct business with USDA electronically at a time when it is convenient for them. And, USDA must move towards "e – Government" while protecting customers privacy and the security of the information and assets that we manage.

The following sections describe the Office of the Chief Information Officer's vision and mission for using IT to effectively deliver USDA's programs to the American people and sets forth the priorities OCIO must address to meet the challenges ahead.

VISION STATEMENT

The vision of the Office of the Chief Information Office:

- Better government through effective use of information, people and technology

MISSION STATEMENT

The vision of the Office of the Chief Information Office is:

- To strategically acquire and use information and technology resources to improve the quality, timeliness, and cost effectiveness of USDA service delivery to all its customers.

KEY EXTERNAL FACTORS

There are several external factors that may affect the achievement of OCIO goals and objectives. Among these are the following: (1) variances in programmatic or legislative mandates brought about by major changes in the quantity, type, and utilization of information, (2) the rapid pace of change in technology and (3) the ability to acquire

qualified personnel.

OPPORTUNITIES AND CHALLENGES

The Office of the Chief Information Officer must provide effective leadership to USDA's agencies in the strategic acquisition and use of IT resources in a dynamic and changing IT environment. IT is a critical enabler for USDA's seven missions and historically disparate program areas. Understanding the opportunities and challenges posed by this environment is essential to framing the strategic focus for OCIO for the next three to five years.

Opportunities

Service Center Management – The Secretary has asked the CIO to play a direct role in managing the IT investments in the Department's Service Center Modernization Initiative. OCIO's enhanced role in this key Departmental initiative has created the opportunity to forge critical relationships with program managers in the Service Center Agencies, while also ensuring that IT investments support reengineered business processes to create a truly one-stop shop for USDA's customers.

Electronic Government – Electronic government provides USDA agencies the opportunity to serve customers 24 hours a day, seven days a week, whenever it is convenient for them. The Internet has also created the opportunity for USDA and all Federal agencies to create more efficient, integrated, and customer friendly business processes, to share information easily with all stakeholders, and to receive constant feedback from customers about how to improve services while accomplishing more with less. Legislation, such as the Freedom to E-file Act, make it clear that constituents expect USDA to act quickly to reengineer its business processes to take full advantage of exciting technological advancements.

Corporate Management – The Clinger-Cohen Act, the Government Paperwork Elimination Act, Freedom to E-File Act, the Government Performance and Results Act, and other legislation make it clear that IT resources are a strategic resource that is central to delivering programs and services. OCIO and other Departmental officials must provide the leadership necessary to improve how USDA agencies work together to ensure that we find enterprise-wide solutions to common problems, reduce redundancies, and leverage our resources. Intensified government-wide focus on sound Capital Planning and Investment Control Processes make it imperative that OCIO continue to improve its leadership in the strategic management of USDA's IT assets.

Universal Access – Changes in the telecommunications industry make reduced unit cost a reality, but only if the Department seizes the opportunity to create an universal network. The universal network will allow USDA to more efficiently manage its telecommunications assets, ensure the capacity necessary to move into E-government, and enable us to leverage the successes documented by industry partners and take advantage of unit cost reductions.

Challenges

Information Security – The increase in computer viruses, denial of service attacks, hacker attempts, as well as potential physical threats make it vital that USDA acts quickly, and in a concerted effort, to strengthen cyber-security. OCIO has taken steps in this direction by hiring an expert as the new Associate CIO for Cyber-Security. His presence has already yielded results in forging a coordinated approach to security issues as well as ensuring agency compliance with security policies. However, much more remains to be done to ensure that USDA's financial assets, program resources, and personal information about customers and employees are secure.

Constrained Budgets – In many cases, *OCIO*, as well as USDA agencies, continue to receive less budgetary resources than required to fully implement the initiatives necessary to achieve our objectives. The Service Center Modernization Initiative continues to suffer from insufficient resources. OCIO has not yet received full funding for critical security or electronic government initiatives – including cross agency initiatives that are critical to ensure seamless access to governmental services by citizens. Funding is also required to support the enterprise network and to ensure the necessary bandwidth is available to support E-government. Fully achieving OCIO's strategic plan and meeting our objectives will be difficult if these budgetary issues are not resolved.

Electronic Government – With few exceptions, USDA has not fully realized the potential of the Internet to change the way it delivers programs and services, and communicates with customers, other constituencies, or internally. As the Internet rapidly transforms the private sector, citizens increasingly are demanding the same kind of efficient, integrated, and seamless services form government. To respond, government agencies must understand their customers' needs and organize their information, and even program transactions, according to customers' interests, rather than the interests of existing organizations. USDA managers must understand the ramifications of e-Government, and they must have incentives to work together and provide customers the kinds of services they deserve.

IT Staffing Shortage - OCIO, like all Federal agencies, continues to face the challenge of finding, training, and retaining skilled IT employees. Government pay scales are significantly lower than those in the private sector, making it more difficult for government agencies to compete for talented IT employees. OCIO must continue to support government-wide solutions to the IT labor shortage, while working to ensure that OCIO becomes an ever more attractive organization for IT employees to work.

USDA Culture – USDA has seven program mission areas and includes some 29 separate agencies and staff offices with different structures and cultures. The Department has some 15,000 offices spread across the United States and worldwide. USDA's history,

and culture is such that agencies do not automatically think of USDA as a corporate entity – rather, each agency values its autonomy and ability to make decisions it believes are in the best interests of its specific customers, not necessarily considering how such decisions relate to USDA as a whole. This is the case even where customers are essentially the same. OCIO, in cooperation with the Secretary, sub cabinet, and other Departmental officials, must provide the leadership and incentives to forge the necessary combination of centralized and decentralized authority to ensure that IT resources are efficiently managed and that USDA's customers receive the integrated services they deserve.

Multifaceted IT Architectures – USDA agencies deploy a wide range of IT resources and technologies, creating a complex infrastructure of hardware, software, telecommunications, and other resources. Disparate human resources, property management, procurement, and other systems proliferate across the Department – making it difficult to achieve the benefits of standardized IT architectures, telecommunications, or policies. However, the trend is increasing towards finding common approaches to common problems. Forging appropriate standards while effectively managing these assets requires cross-agency communication and focused leadership to ensure that individual agency decisions consider the impact on the whole, best practices are shared, and, where it is appropriate, resources are leveraged.

Goal 1: Enhance Customer Service and Operational Support.

We must make our commitment to customers highly visible through an aggressive approach to problem resolution, improved technical communications, a centralized help desk (customer service center), and the development of good customer service skills. Those capabilities must be possessed by all staff, including clerical, administrative, and operations personnel. Commitment to customer satisfaction makes it imperative that we fully understand the missions and goals of our customers so that we can satisfy their requirements both current and future. We must deliver "just in time" services to our customers and provide the leadership necessary to help them make sound information technology investments.

Objective 1.1: Be a leading, Innovative Information Technology Organization, Experienced in Providing Quality and Cost Effective Services.

The mission of the National Information Technology Center (NITC) is to provide reliable and cost-effective information technology solutions to achieve effective mission performance and program delivery for the USDA, its agencies, and other clients.

To achieve excellence, the NITC must maximize the life and performance of its existing infrastructure, provide outstanding services to its existing customers, control and reduce costs, improve customer service quality, develop new services and increase our customer base for existing services, prepare the workforce to meet future challenges, improve its business processes, and improve security.

Key Outcome Measures:

- Improve computer security
  Baseline: In FY 2000, the NITC implemented 7 significant security improvements.
  Target: In FY 2001, the NITC plans to implement 5 significant security improvements.

- Implement new services and increase the customer base for existing services.
  Baseline: The NITC increased its revenue by 4 percent in FY 2000 as a result of new services.
  Target: NITC plans to increase its revenue by 5 percent in FY 2001 as a result of new services.

- Propose new services to customers.
  Baseline: In FY 2000, the NITC proposed 8 new services to customers.
  Target: In FY 2001, the NITC plans to submit at least 10 proposals for new services.

- Improve employee training.
  Baseline: In FY 2000, the NITC provided training for 86 percent of its employees.
  Target: In FY, 2001, the NITC to train at least 88 percent of its employees.

Long-Term Strategies:

- Increase customer base.
- Reduce unit cost to customers.
- Participate in government IT trade shows to exhibit services and products
- Maintain an infrastructure to ensure maximum availability, reliability, and performance.
- Develop strategy, implement, and market a service which will enable NITC customers to access NITC computing platform via a Web interface.
- Improve the process by which NITC business needs are identified, and then met by managing staffing levels and enhancing skill sets.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff. It also requires strong partnership with USDA agencies and a high level of management commitment, resources, and time to implement.

Objective 1.2: Enhance Telecommunications Service Delivery

Consistent with recent legislation and new ways of doing business, USDA is moving toward electronic delivery of services. To achieve electronic delivery goals, USDA must have a well-managed, reliable, secure, and adaptable telecommunications infrastructure. In addition to meeting legislative mandates, management of this infrastructure requires dealing effectively with the ongoing transformation of the telecommunications industry, developing sound acquisition strategies, buying wisely, monitoring performance of the network and management structure, reviewing and assessing compliance with established policies, and taking corrective action when needed. OCIO will also continue to address critical weaknesses in USDA telecommunications management identified by the General Accounting Office. A key component of the strengthened management structure is the proposed implementation of the USDA Universal Telecommunications Network (UTN), which will improve connectivity for USDA customers, partners, and agencies to efficiently and effectively move information. The UTN will be comprised of a common network backbone linking critical population centers and utilizing multiple Internet access points. The UTN will be managed and supported through a centralized Network Management and Coordination Center (NMCC).

Key Outcome Measures:

- Transition USDA Agencies FTS2000 long distance services to FTS2001 long distance service provider.
  Baseline: 79% currently transitioned.

Target: 100% transitioned by FY 2001.

- Implement USDA Universal Telecommunications Network (UTN).
  Baseline: The UTN project has received Executive Information Technology Investment Review Board approval and was ranked as the Department's second highest priority in the USDA administrative investment portfolio. During FY 2001, OCIO will finalize the business requirements study for the UTN and begin the investigation of appropriate network management tools, including encryption tools, for the UTN. The development of a Network Management and Coordination Center that will provide network operational and security troubleshooting functionality will also be initiated.
  Target: FY2001 – 32% complete, FY 2002 – 100% complete.

- Improved performance of existing network through enhanced network management capabilities.
  Baseline: 85% average utilization of network capacity.
  Target: Reduce average utilization to 65% by 2002.

- Strengthened security by configuring USDA Internet access points in accordance with Departmental security standards.
  Baseline: 15% of access points are in accordance.
  Target: 100% by 2003.

Long-term Strategies:

- Validate business requirements for telecommunications architecture.
- Incorporate network performance measurement tools.
- Expand network through a phased approach to increase reliability and survivability.
- Implement centralized network management capability.
- Develop and implement a telecommunications review, evaluation, and guidance program.
- Manage the transition from analog to digital secure voice.
- Manage the conversion of radio narrowband systems to meet January 2005 deadline.
- Conduct periodic assessments of telecommunications industry evolution to include technology changes, pricing strategies/models, and service delivery methods.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff with strong management, technical, and analytical skills. The challenges associated with recruitment and retention of skilled personnel in the broader IT arena is particularly evident in the rapidly changing telecommunications environment. Responsive service delivery is dependent on the leadership, security,

quality, and operation of the telecommunications infrastructure. Additional funding for contractor support will also be needed for all aspects of designing, implementing, and managing the universal network.

Goal 2: Improve and Enhance the Information technology Capital Investments Process and The Skills of The Information Technology Workforce.

Ensuring that IT decisions meet core business needs requires the engagement of the USDA community, beginning with the most senior program officials. OCIO must ensure that Department IT investments deliver a substantial business benefit to agencies and a positive return on the investment for taxpayers. Meeting these expectations and legislative mandates requires the establishment of an effective and efficient capital planning and investment control process, sound integrated information technology architecture, and a skilled workforce for continued program delivery.

Objective 2.1: Ensure IT Investments Are Managed and Deployed Effectively.

Working with USDA program and IT staffs, OCIO has made great progress in implementing a Capital Planning and Investment Control (CPIC) process. The CPIC Program established a Departmental process for selecting, managing and evaluating the results of all major investments in information technology. This process is based on applicable General Accounting Office and Office of Management and Budget (OMB) guidance. The selection process incorporates OMB's "Raines Rules," which guides agencies to assess investments based on their ability to meet mission needs, their cost/benefit/return profile, and the risks on the investment. The Department has been a leader in the development and use of the Information Technology Investment Portfolio System (I-TIPS), which was jointly developed by USDA and the Department of Energy. USDA is now using I-TIPS to manage information about its entire IT investment portfolio. This system supports USDA's implementation of the CPIC process. In order to continue to improve our performance in Capital Planning, and thereby ensure that we make the best investment choices and manage our investments to successful implementation, we must improve the quality and the consistency of capital planning across USDA. Further we must develop and implement tools to support the disciplines of CPIC, Return on Investment, risk assessment, and performance measurement. Finally, we must train OCIO and agency staffs to ensure tools are applied properly and investments are managed well.

Key Outcome Measures:

- Enhance the CPIC process by increasing use of USDA's I-TIPS to track agency IT investments, benefits, risk assessments and evaluations for all major and significant USDA IT investments. OCIO uses the annual budget process to review agency IT portfolios to determine how well or how poorly agencies have adopted the CPIC for their own use. OCIO will use the information entered by the agencies into I-TIPS to determine the degree to which they have utilized CPIC

methods and tools to select, control, and evaluate their IT investments. Through these methods OCIO will be able to make a qualitative determination about the agencies use of CPIC.

Baseline: Currently only basic budget and descriptive information for most investments in the major and significant categories**.** In addition to this information, OCIO will work with the agencies to ensure that the following documents are available through I-TIPS: benefit/cost analyses, risk assessment, project milestones, technical documentation, and waivers. The data currently stored in I-TIPS represents about 10% of the total investment documentation.

Target: 100% of USDA major and significant systems will utilize the full range of CPIC tools and methods by 2005 and will store these documents in I-TIPS.

Long Term Strategies:

- Improve the quality and the consistency of capital planning across USDA.
- Assist agencies in the refinement of their planning process for making IT investment decisions based on departmental business needs.
- Improve the quality and consistency of risk and return on investment (ROI) analyses performed by USDA agencies.
- Assist agencies in increasing the completion rate of USDA's major IT systems development projects within budget and schedule.
- Provide toolsets that will assist in tracking investments, performing ROI and risk analyses, and developing measurable performance goals.
- Increase consistency of application of CPIC processes throughout USDA.

Human, Capital, Information, and Other Resource Needs: Achievement of this objective requires additional staff for the development and support of the CPIC toolkit. Additional funding is needed for contractor support and system maintenance and upgrades.

Objective 2.2: Develop an Adaptive Enterprise Architecture.

The USDA Enterprise Architecture (EA) provides the mechanism for viewing and managing USDA's information and technology assets from a corporate perspective. It defines the business environment, information necessary to operate the business, technologies supporting business operations, and governance processes for implementing new information systems and technologies in response to the changing business needs. USDA will use an open systems, disciplined, and standards-based IT architecture to design and develop future information systems, for re-engineering legacy systems, and for achieving future integration and interoperability among systems across the broad and distributed USDA enterprise. To implement the technology portion of the EA, USDA will develop and/or renew enterprise/master contracts for products used department-wide.

Key Outcome Measures:

- Increased number of corporate projects and information systems
  Baseline: Baseline to be established.
  Target: Eliminate of duplicate systems by 10% each fiscal year. Full implementation by 2005.
- Increased use of commercial-off-the-shelf products.
  Baseline: Baseline to be established.
  Target: Increase the use of COTS for new systems by 50%.
- Increased number of enterprise/master contracts .
  Baseline: As of FY 2000, there is one contract.
  Target: Develop and/or renew three enterprise/master contracts each fiscal year.

Long-term Strategies:

- Establish the EA governance process, including the EA Board and associated groups.
- Publish and maintain information about the USDA EA on the OCIO web site.
- Participate in the Federal CIO Council Enterprise Interoperability and Emerging IT Committee and pilot projects.
- Market use of USDA's EA concepts, principles, and standards to USDA agencies, the federal community, stakeholders, customers, and industry.
- Develop a training and awareness program on aspects of the USDA EA for Department and agency use.
- Further integrate the EA with CPIC.
- Incorporate the Enterprise Applications Model and methods into proposed USDA applications development initiatives and agency standard systems development life cycle methodologies.
- Increase data sharing through the use of middleware, message broker, business intelligence, and data warehousing and data mining technologies.
- Build information systems using modular components and make them available as shareable assets.
- Establish and maintain information about USDA's EA (metadata) in a USDA-wide inventory tool.
- Create and maintain an architecture technology inventory to identify architecture trends and potential areas to coordinate resources.
- Develop and implement an IT asset management program to continue development of an interoperable technology infrastructure for USDA.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff and funding for contractor support. It also required strong partnership with USDA agencies and a high level of management commitment, resources, and time to implement.

Objective 2.3: Improve IT Workforce.

Ensure that USDA's IT staff has the skills and resources to meet mission objectives. Assist USDA IT and HR leadership in managing its IT workforce in a competitive labor market environment; in planning for the large number of retirements expected between now and 2005; and in more effectively managing IT investments.

Key Outcome Measures:

- Develop a baseline that will describe specific characteristics of USDA's IT workforce and make projections for the future.
  Baseline: N/A
  Target: 100% complete by 2001.

- Distribute and market federal IT core competencies and IT skills assessment tool.
  Baseline: N/A
  Target: All agencies by 2001.

- Research and market effective IT education and training opportunities to help close the IT skills gap.
  Baseline: N/A
  Target: All agencies by 2002.

Long-Term Strategies:

- Collect and analyze data on USDA's IT workforce. Data collected will include, but will not necessarily be limited to the following: agency, location, age, education, diversity, years of experience, federal government tenure, grade and step, and retirement eligibility.
- Develop a detailed projection of USDA's IT workforce for each of the next five years under a variety of management strategies concerning recruitment, promotion and retention.
- Develop, collect, disseminate and analyze results of a survey of skills and competencies of IT employees and identify trends.
- Identify the IT skill and competency gaps of IT employees, based on Federal CIO core competencies.
- Support continued development of managers, staff and IT professionals in functional training areas cited in Federal CIO core competencies.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff and funding for contractor support. It also requires strong partnership with USDA's human resources community and with HR and IT management in the agencies.

Objective 2.4: Ensure the Civil Rights of All.

OCIO supports USDA management concerning fair and equitable treatment of all customers and employees. OCIO will achieve results that our customers and stakeholders

need while providing the service that they expect. The success of this objective depends upon an energized, quality workforce where civil rights practices are followed.

Key Outcome Measures:

- Provide Civil Rights and conflict management training for all employees.
  Baseline: FY 1999 – 100% trained, FY 2000 100% trained.
  Target: Train 100% of employees yearly.

- Provide ethics training for all employees.
  Baseline: 1999 – 15% employees trained.
  Target: 50% of employees trained each year.

Long-Term Strategies:

- OCIO will ensure all decisions related to personnel actions are in concert with the Department's civil rights compliance and enforcement functions, and that individuals are treated with the respect they deserve.
- Ensure that senior executives and supervisory managers are aware of Equal Employment Opportunity and Civil Rights responsibilities.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires strong partnership with USDA's human resources and civil rights communities within the agencies.

Goal 3: Effective Stewardship Through Enterprise Program Management

A review of best practices of leading businesses, state governments, and Federal agencies indicate that systematically building an enterprise-wide program/project capability will add value as processes mature. Through active program management, USDA will focus on implementing cross-function integration that ensures solutions can be effectively and successfully managed. Increasingly, independent verification and validations will be part of the toolset for navigating the development and deployment of integrated business/IT initiatives.

Objective 3.1: Promote Transformation Through E-Government.

- Advances in enabling information technology (IT) and increasing public awareness and use of the Internet have raised expectations for government information and services to be available on line. The Government Paperwork Elimination Act (GPEA), PL 105-277, requires all federal agencies, by October 2003, to allow individuals or entities the option to submit information, transact business, and maintain records electronically. The Freedom to E-File Act, PL 106-222, requires USDA's county-based agencies (FSA, NRCS and Rural Development) to establish an Internet-based system that enables agricultural

producers to access all forms by December 18, 2000. Not later than two years after enactment (June 20, 2002) the system should enable producers to access and file all forms and selected records, and also have electronic access to USDA farm related information already available to the public in paper form. Freedom to E-File also requires the Risk Management Agency and Insurance Providers to allow agricultural producers to obtain Federal Crop Insurance electronically by December 2001. OCIO is charged with the responsibility to coordinate and facilitate the planning and implementation of e-Government business initiatives. OCIO will provide education and enterprise-wide policy and IT solutions. OCIO will provide the leadership to develop a coherent comprehensive e-business strategy supported by Departmental guidance and policy that will be understood and utilized by business and IT leaders to implement e-business initiatives by FY2001. On line customer service will be available 24 hours a day, 7 days a week, 365 days a year, accessible (Section 508 compliant), secure and protect privacy. Transformation will be achieved through an iterative phased approach:

- Phase I will focus on basic program information, forms and data being available on line (FY 2001-2002);
- Phase II will incorporate on line transactions, including electronic signature (FY 2002-2003);
- Phase III achieves transformation to fully integrated end-to-end business processes providing continual customer care across the enterprise (FY 2004-2005).

Key Outcome Measures:

- Develop and implement a Department-wide unifying vision and strategy for e-business.

  Baseline: USDA Mission Areas/Agencies are developing and implementing independent stove-piped web-based information and applications. Current guidance and policy, on transacting business and maintaining records electronically, is available but under utilized.

  - **Target:** Transformation of a fully integrated e-government environment. 2001- 20% of USDA forms transformed, 2002 – 75% forms transformed.

Long Term Strategies:

- Identify best practices and develop enterprise-wide solutions to enable individuals or entities to obtain and submit information or transact electronically.
- Establish an enterprise architecture/infrastructure to support Internet-based information access and business transactions.
- Educate Senior Policy and Business Leaders to gain "ownership" of the fundamental reengineering of business processes to successfully make the transformation to e-Government.

Human, Capital, Information, and other Resource Needs: The achievement of this objective requires additional staff and contractor support to manage and facilitate the planning and implementation of e-business initiatives.

Objective 3.2: Implement the IT Infrastructure For USDA Service Center Modernization Initiative.

The Deputy Secretary of Agriculture has given direct management and oversight in the development and coordination of the IT component of the Service Center Modernization Initiative (SCMI) to OCIO. This includes the implementation of a common technology infrastructure to replace the outdated and stove piped systems currently supporting the Farm Service Agency, the Natural Resources Conservation Service, and Rural Development. In partnership with the above agencies, OCIO is on target to ensure the basic common computer environment technology infrastructure becomes operational in FY2002.

Key Outcome Measures:
Develop and implement a common computer environment infrastructure for USDA Service Centers which includes the whole package of hardware, software, security, websites, telecommunications and databases, but excludes the development of applications.

- **Baseline:** The existing information technology infrastructure for the Service Centers has major deficiencies that inhibit improvements in both service quality and operating efficiency. Partner agency processes, systems, and data have evolved as separate systems. These old systems do not allow Service Center employees to share data, utilize modern software, or utilize modern business delivery tools such as the Internet.
  Target: Percent workstations deployed – 2000 – 86%, 2001 – 100%.
  Percent FSA connectivity solution deployed - 2001 – 100%.
  Percent network servers deployed – 2001 – 100%.
  Percent application servers deployed – 2002 – 100%.
  Number common SC Agency web farms
  Implemented – 2001 – 3, 2002 – 100%.
  Enhancements to Web farm security, services
  & connectivity - 2002 – 100%.
  Number SC Agency data warehouses
  Implemented – 2001 – 2, 2002 – 100%.

Long Term Strategies:

- Plan, procure and deploy the hardware to support reengineered business processes and legacy information systems in all USDA Service Centers.
- Plan, procure and deploy the software necessary to support legacy information systems and reengineered business processes, working in conjunction with

other OCIO staff to procure enterprise-wide licenses where feasible.
- Plan, procure and deploy the telecommunications infrastructure to support current and future needs of USDA Service Centers.
- Plan, develop and implement the data architecture, which includes identifying optimum geographic placement of databases and target database management systems.
- Develop security plans and oversee agency implementation.
- Plan and execute the migration of agency legacy information systems to the new environment.
- Ensure that an orderly configuration management and change management process is established and adhered to.
- Improve service by providing remote customers access to all applicable USDA program information and applications.

Human, Capital, Information and other Resource Needs: Achievement of this objective requires additional staff and funding is needed for contract support.

Goal 4: Develop, Implement and Maintain a Secure and Confidential IT Environment While Protecting Privacy.

Protection of information assets and maintaining the availability, integrity, and confidentiality of USDA IT systems and telecommunications resources are vital in meeting USDA's program delivery requirements. Information security has emerged as a top priority for the Department. As technology has enhanced the ability to share information instantaneously between computers and networks, it has also made USDA organizations more vulnerable to unlawful and destructive penetration and disruptions.

USDA's mandate for securing its information systems arises from the Computer Security Act of 1987. This law and guidance from the Office of Management and Budget provide the department with the basic security requirements. In addition, on May 22, 1998, Presidential Decision Directive 63 (PDD 63), explaining key elements of the Clinton Administration's policy on critical infrastructure protection, was released. It calls for a national effort to assure the security of the United States' increasingly vulnerable and interconnected infrastructure, particularly its cyber systems. These requirements, along with his own concerns, have led the Secretary to direct the Office of the Chief Information Officer (OCIO) to develop a strategy to improve USDA's cyber security. OCIO's Action Plan to Strengthen USDA Information Security, completed in August of 1999, lays out a comprehensive and multi-faceted approach necessary to ensure that the risks to the Department's information assets are identified and minimized.

Objective 4.1: Ensure USDA Agencies Have Identified Security Vulnerabilities and Implemented Strategies To Mitigate Them.

Comprehensive and thorough security threat assessments of USDA's information assets must become an integral part of IT management within the Department. OCIO will begin

a campaign to institutionalize IT risk management as a standard component of USDA's technology investment and management strategy.

Key Outcome Measures:

- Provide policy, guidance and training to strengthen USDA information security to all USDA agencies. Evaluate all mission critical information systems and identify all vulnerabilities. Develop mitigation plans for vulnerabilities discovered through formal threat assessments.
  Baseline: Currently, threat assessments have been conducted on only a few of USDA's critical information systems. Furthermore, these assessments are not standard, nor comprehensive.
  Target: All USDA critical information systems will be evaluated for security vulnerabilities, using a standardized assessment method, by 2002.

Long-term strategies:

- Reach consensus within the department on Security IT risk assessment standards and criteria, then implement USDA's Security IT Risk Assessment Program.
- Develop and distribute policies and procedures to ensure assessments are conducted in a timely and thorough manner.
- Conduct training for both technical and business communities in risk management, security controls, and security responsibilities.
- Assess USDA mission critical information systems to meet the risk assessment requirements of existing laws, guidance, and internal USDA policies.
- Identify and implement mitigation strategies to provide the most efficient and effective security measure that will reduce risk to an acceptable level.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff for the development and support of a cyber security program. Additional funding is needed for contractor support.

Objective 4.2: Develop and Implement an Information and Telecommunications Security Architecture.

USDA's information security and telecommunication architecture will include logical and physical controls to appropriately mitigate risks and address all information security requirements.

Key Outcome Measures:

- Assess proposals, review agency policy and guidelines, define and manage network connections, install firewalls and secure all dial-in communications to the USDA network. Develop policies and guidelines that provide agencies with security standards and repeatable procedures that ensure information assets remain safe and available.

Baseline: Currently, agency security mechanisms and procedures are neither standardized nor complete.
Target: By 2002 USDA computer security policies and procedures will provide standard security procedures. Uniform security mechanisms will be defined and implemented for all critical information systems.

Long-term Strategies:

- Define requirements for USDA agencies and offices.
- Access available security technologies for appropriateness to USDA business needs.
- Begin design and implementation, including pilot projects and testing.
- Incorporate monitoring and intrusion detection tools and procedures.
- Determine need for and implementation of specialized security applications such as Public Key Infrastructures and Virtual Private Networks.
- Integrate security architecture with IT architecture.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff for the development and support of a cyber security program. Additional funding is needed for contractor support and additional staff is needed to provide support and guidance.

Objective 4.3: Raise The Awareness of Security Issues Within USDA and Provide Employees With The Training Needed To Meet Security And Privacy Requirements.

OCIO will develop a uniform and comprehensive awareness program and conduct a Department-wide communication effort specifically designed to educate all employees about the security risks facing the Department, and their responsibilities in minimizing these risks, thereby improving the department's ability to protect its information resources. IT security and technical personnel will be afforded training to ensure they have the skills and expertise to safeguard information assets.

Key Outcome Measures:

- Train agency employees in basic computer security disciplines and conduct surveys on security awareness.
  Baseline: Security training and awareness programs conducted throughout the Department are inadequately funded and unevenly administered.
  Target: By 2002, all USDA employees will become aware of computer security issues and methods for mitigating information system vulnerabilities. Security personnel will receive training necessary to administer sound security programs.

Long-Term Strategies:

- Establish a baseline of security awareness.

- Assess, select, and or develop training materials.
- Develop security curricula.
- Conduct training.
- Train security technicians to level of certification.
- Agencies will formulate agency-specific security awareness programs.

Human, Capital, Information, and other Resource Needs: Achievement of this objective requires additional staff for the development and support of a cyber security program. Additional funding is needed for contractor support.

Key External Factors: Achievement of these objectives is dependent upon several factors, beginning with acquiring and maintaining qualified IT professionals and keeping abreast of the rapid change in technology. The introduction of new legislation and mandates could also cause a delay or a change in strategy. To mitigate these factors, OCIO will review its strategy and reprioritize activities accordingly.

Program Evaluation

The OCIO has completed various program reviews and evaluations, in conjunction with the internal and external oversight offices, designed to optimize the business approach utilized to meet the OCIO mission.

OCIO plans to use internal assessment and feedback from our partners and stakeholders to evaluate the overall objective, quality, value and usefulness of the work done related to each of the goals identified in this plan.

OCIO is actively engaged in several federal and private IT organizations that provide leadership and guidance as well as impact policy decisions that impact the IT environment.